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Determination of the profile of the worm-type tool

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Abstract

© The Authors, published by EDP Sciences, 2017. The cutting wedge of disk shaver at gear shaving has not fully satisfactory geometry: clearance The cutting wedge of the disk shaver when gear shaving is not fully geometrically satisfactory. The clearance on cutting edges are practically equal to zero. We would suggest this is the reason that the disk shavers machining of gear-wheels with large allowance is not possible. The construction of a worm-type tool is known also for clean machining of points of involute of gear-wheels made with continuous spiral cutting edges. The difference of this construction from the construction of N. Chemborisov is that a cutting wedge has the structurally made clearance α (Authors: N. Smorkalov, V. Skripin, V. Ptitcin, IU. Belugin). Polishing of side of coil is the most responsible and labor intensive operation when making a worm-type tool with the continuous spiral cutting edges of construction of N.Smorkalov and other.Dependences allowing to define the coordinates of key points of axial section of side of coil of the worm-type tool were obtained. These coordinates will allow to define the parameters of setting of abrasive disc in relation to the worm-type tool.

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